OHIO CULTIVATOR.

A Semi-Monthly Journal of Agriculture and Horticulture.

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OHIO CULIVATOR.

A Semi-Monthly journal, devoted to the improvement of Agriculture, Horticulture, and the Mecanic Arts—and the promotion of domestic industry.

M. B. BATEHAM,
EDITOR AND PROPRIETOR.

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Agricultural Societies and Fairs in Ohio.

Clark and Madison,	Fair at	Springfield, Sept. 15 and 16.
Columbiana,	"	New Lisbon, Oct. 14.
Cuyahoga,	"	Cleveland.
Defiance,	"	Defiance.
Fayette,	"	Washington, Oct. 7 and 8.
Gallia,	"	Gallipolis, Sept. 25.
Geauga,	"	Chardon, 8 and 9.
Greene,	"	Xenia.
Hamilton,	"	Carthage, Sept. 24, 25, & 26.
Harrison,	"	Cadiz.
Highland,	"	Hillsborough.
Jefferson,	"	
Lorain,	"	Elyria, Sept. 30.
Miami,	"	
Montgomery,	"	Dayton, Oct. 22 and 23.
Portage,	"	Ravenna.
Ross,	"	Chillicothe, Oct. 14 and 15.
Trumbull.	"	Warren, Oct. 22.
Washington,	"	Marietta.

The above list will be repeated in the next number of our paper, and we shall be pleased to add the names of any other agricultural societies that may have been organized in the State; also, to insert the times for holding the annual fairs of such as are not specified. Our friends will please notify us of these as soon as determined. ☞ Papers containing notices should, in all cases, be marked with a pen, when sent to us, or they are liable to be overlooked.—ED.

Grafting Grape Vines.

Another correspondent inquires about grafting grape vines, and as I have had some experience in that also, I will give it, and think I can convince him that it requires no great skill or nicety. In January, 1844, I was setting out foreign vines in a green-house, and thinking I might gain time by grafting, I went into my vineyard and selected twelve Isabella vines of not less than an inch in diameter at the surface of the ground. These I took up with the greatest care and planted just in front of my green-house. I then carried the stems through the foundation and cut them off inside, about three inches under ground, split them, and inserted two scions in each. I did not bind them, but simply pressed the earth tightly about them, and every one took. They showed plenty of fruit the next year; but I only allowed them to bear a few bunches, which they ripened well. This year, they are growing with wonderful vigor, and are covered with fine bunches of grapes, while the young vines planted at the same time will not be ready to bear these two years. Since then I have grafted vines in every month from February till June, and with equal success, and therefore conclude that, *if grafted under ground*, there need be no difficulty about it. H. W. S. C.

Oatlands, Burlington, N. J., May 2), 1846.

On Grafting the Vine.

'*Grafting the Vine* is attended with great success in the cleft manner, if treated as follows: Cut your scions during winter, keeping them partially buried in a cool damp cellar till wanted. As soon as the leaves of the old vine or stock are fully expanded, and all danger of bleeding is past, say about the 1 th of June, cut it off smoothly below the surface of the ground, and split the stock, and insert one or two scions in the usual manner, binding the cleft well together if it does not close firmly. Draw the soil carefully over the whole, leaving two or three buds of the scion above the surface. If the root of the stock is a strong native grape, the graft will frequently grow ten or fifteen feet during the first season, and yield a fair crop during the second year.

'The Vine may also be grafted with good success at the usual season, if grafted below the ground; but above ground it should not be attempted, on account of bleeding, until the leaves are nearly expanded.'—*Downing's Fruit and Fruit Trees of America.*

CARROTS.—S. Brown, in the Boston Cultivator, says, 'We have fed two farrow cows with carrots, from the time of housing to the present date, and the result is, they have given nearly twice the quantity of milk they would have produced without them, and of a richer quality; the butter made from them, churns quick, and is nearly equal to June butter.'

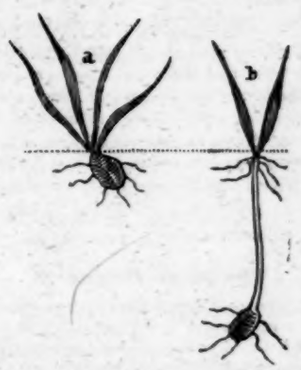
Depth of Sowing Wheat.

MR TUCKER—Few persons are aware how very much the yield of the wheat crop depends upon the manner upon which the seed is deposited in the soil. I risk nothing in saying that fully one-third could be added with certainty to everp farmer's crop by due attention to this point. The proper depth at which seeds should be deposited in the soil, has engaged the attention of the most eminent agriculturists and scientific men of Europe, and its vast importance acknowledged by them.

Baron Voght, of Flotbeck, near Hamburg, has most ably discussed this subject in the British Farmer's Magazine, vol. 4; and Mr. Patrick Sheriff, of Mungo's Wells, near Haddington, in Scotland, has written, in the early numbers of the Quarterly Journal of Agriculture, some articles so practically convincing, and so much to the point, that I think you could not do your readers a greater favor or service than to give them to them entire, if the work I allude to is within your reach. If seeds be placed by accident or design at such a depth in the earth, as to be out of the influence of the air, and though they may be surrounded by the requisite degrees of heat and moisture, they will nevertheless remain dormant.

We have many instances of the truth of this in every day practice, and of the imperishable properties of some kinds of seeds when excluded from the influence of the air. If seeds are dropped on the surface of the ground, they will remain uninjured and unaltered so long as the air is perfectly dry; but in moist air, germination commences, and the point of the root will quickly protrude and find its way into the soil. This is the ordinary process of nature; but experience has taught us, that though nature distributes grain, and other seeds generally, on the surface of the spot where produced, yet there is a proper depth at which all seeds should be deposited, and which is specially suitable. This depth is obviously that which, while it yields the necessary degrees of heat, moisture, and darkness, is yet within the requisite influence of the air. The drilling system is approved, not only from its equal distribution of the seed, but because by it seeds are also laid in at an equal depth; this last circumstance is regarded as one of the principal advantages of the machine. Now, Baron Voght has endeavored to show that seeds may be deposited too deep even by the drill, and in all cases when seed is sown before harrowing, much of it will be laid deeper than it should be, and consequently lost. Of this there can be no doubt. Every one acquainted with sowing must allow that seed may be buried too deep; and every body acquainted with the structure of culmiferous plants, and their manner of growth, must be convinced that if seeds are just covered so as to be sufficiently shaded from the sun's rays, it is enough. Mr. Sheriff clearly proves, that all seeds with what he calls 'coronal roots,' no matter at what depth the seed is deposited and germinates, that so soon as it reaches within one-half an inch of the surface of the earth, it will then put forth its coronal roots, and from them make a new start. There is no fact connected with agriculture more easy of proof than this; any farmer may take a flower pot filled with earth, and in it deposit three or four grains of wheat at different depths, from an inch downwards, and satisfy himself of this fact, as well as the weakly and sickly state of all that are sowed below the depth of one inch, as compared with the one sown at that, the proper depth.

Explanatory of these assertions, Baron Voght has appended to his paper figures of the five different kinds of grain in five different states of growth, caused by the different depths at which they had been deposited in the earth. I annex two of these, as sufficient to illustrate my subject.



The dotted line is the surface of the ground; *a*, represents a healthy plant of wheat from a seed laid in at the proper depth, viz, one inch beneath the surface; *b*, shows the growth of a plant from a seed which has been laid in two days This last, it will be observed, vegetated, although two or three inches under the surface, threw out its seminal or first roots, and sent up its first shoot bearing two leaves into the air; but as the first branch of the culm rises therewith, and remains near the surface; it also throws out roots, and entirely supercedes those that were first produced from the grain.

To every practical and observant farmer, it must be evident that this unnecessary waste of vegetable power must be both hurtful and unnatural; besides, the young plant must be more liable to accidents from the changes of the weather, slugs, and insects, during the ascent of the first shoot, and before the principal root is formed, than if started from its natural position at once.

To guard against over-deep sowing, or burying the seed altogether so as not to germinate at all, it is evident that no seed should be sown until the ground is *first harrowed*, and made level, and when sown, a light harrow passed over the field, will cover the seed sufficiently to insure a safe and good crop. Of these facts experience had long since convinced me; but if any doubt had remained in my mind about it, the crop of wheat grown by Mr. Wm. L. Thompson, within a few miles of this city, the past season, would have entirely removed them. He had a 2) acre field of corn, which he had cut up and taken away. Finding the ground very mellow, he thought he would try the experiment of sowing his wheat on it, two bushels to the acre, without plowing, and merely harrow it in, which he did. His hands, and all his neighbors tried to dissuade him from it, saying it was a waste of so much seed and labor, but much to their astonishment, in the spring, there was no so luxuriant crop as this in the neighborhood; and I have Mr. Thompson's assurance, that he delivered to the mill, of good merchantable wheat, a little over 25 bushels to the acre, being 5 bushels to the acre more than he had ever grown off his land before. So satisfied is he with the result, that he is determined never to sow his wheat again until he has first harrowed and leveled his land, so as to preclude the possibility of too deeply burying any portion of the seed, which is inevitable, if sown on plowed and unharrowed land, or which is still worse, if sown and plowed in as is often the case.

If these remarks will only draw the attention of wheat growers to this subject, I am satisfied that a little reflection and observation will convince them, that by properly preparing their land to receive the seed, and depositing it at a proper depth in the soil, the wheat crop of the United States may be increased fully one-third, without any additional labor or expense.

A FARMER.

Louisville, Kentucky, 1846.

REMARKS.—We copy the foregoing article, for the sake of the valuable facts and illustrations it contains, and not because we agree with the deductions of the writer.

The fact that the young wheat plant, when the seed has been buried at sufficient depth, throws out two sets of roots, is to our mind a very strong argument in favor of covering deep, instead of shallow, as the writer of the foregoing views it. If the ground has been well prepared by deep plowing and pulverizing, the advantage of this lower set of roots must be very great as a means of supplying moisture in time of drought, and also in giving the plant a deeper range from which to draw its food — thus insuring a larger and healthier growth upon the ground.

Then, again, what in many parts is of still more importance, plants that have the lower as well as upper sets of roots, must be much less liable to *winter killing* from the heaving out of the plants by frost. This has been, of late, repeatedly demonstrated by those who have drilled in, or plowed in their wheat, on grounds much liable to heave by frost.

We admit, most freely, however, that when the land is poorly prepared — of a clayey nature, and plowed shallow — deep covering of the seed is not to be commended. For unless the AIR finds access to the lower set of roots, they cannot grow or be of service to the plants; the seeds will vegetate feebly, and the young germ, if it reach the light at all, will be of a less vigorous growth than if the seed had been deposited on the surface and barely covered. Wheat farmers can see in the light of this subject, more evidence of the importance of deep plowing. — ED.

The Moon Defended.

MR. EDITOR:—Longer forbearance ceases to be a virtue; and when again in your last paper my old friend, the Moon, becomes the butt of ridicule and detraction, I feel called upon to vindicate her character.

Your correspondent says: "That the moon can produce any perceptible influence on crops, or deserves the slightest regard in their sowing or planting, is a notion as false in philosophy as it is contrary to fact."

Now as regards the *fact* of the case, we will say nothing at this time, as there is very conflicting testimony in the case. It is the "pholosophy" which we propose briefly to discuss. And in the first place, that the moon has a tremendous influence upon the surface of the ocean, no man can doubt, when he sees its mighty bosom swell, in some places more than a hundred feet, in obedience to her command, and this phenemenon perpetually occuring at regular periods; and I have yet to learn that law of attraction by which the land would be less operated upon than the water.

Nor is the moon alone concerned in this effect, but the sun lends no small degree of assistance; and it is from that fact that I propose proving that it is not "false in philosophy" to suppose that the moon, in her "waxing and waneing," may have an influence upon the earth.

Not that I think the circumstance of the change of its luminous surface, as it is presented to us, has any effect, but its relative position with the sun, independent of its waxing and waneing, may cause a varying influence. Hence when it is in conjunction with the sun, their united attraction must make terrestial objects *lighter* upon that side of the earth under their meridian. And again at full moon or when they are in opposition, their attration operates in opposition, and consequently terrestial objects will be heavier; or in other words, their attractions towards the centre of the earth will be less interfered with.

We have now only spoken of the varying influence the moon has upon the gravity of bodies, which, perhaps, may be *small*, compared with its effects upon the nervous system of Nature, viz: Electricity, which is now becoming an absolving study, not only for the purpose of annihilating space, and anticipating time, (Morse's telegraph) but, by some super-scientific farmers for promoting the growth of vegetation.

We have already said that it is the philosophy, and not the fact, that we propose to vindicate. — But let us take one of the most absurd reputed facts, and see if we cannot bring some philosophy to bear upon it.

For instance, the phases of the moon are regarded by some lunarians as having an influence upon the sinking of a newly built fence. Now if there is any truth in the foregoing remarks, it follows that in the first and last quarter of the moon, or during its approaching and departing conjunction with the sun, their united attraction would cause the fence to sit more lightly upon the earth, and consequently sink less.

We should be sorry for our remarks to be construed into a disposition to encourage an observance of the phases of the moon in any the operations of Agriculture. But, on the contrary, those influences, at most, would be but as a drop in the bucket compared with soil, timely planting, &c.

Your correspondent's remarks upon the "signs" &c., do not come within the purview of this subject, as it was *lunar* and not astral influence we set out upon. O. J. P.

Hesperian Plains, Aug. 28, 1846.

REMARKS. — We give our friend P. credit, and our thanks too, for having sent us the only approach to a rational argument that we ever received in support of the popular notions respecting the moon's influence on Agriculture. Owing to absence and sickness, we have not, at present, time to reply to his arguments; but at another time we will endeavor to show that his "philosophy" is wholly erroneous.

Interesting Experiments in Wheat Culture.

USE OF HORN-SHAVINGS, LEACHED ASHES AND SALT.

The following is a report of experiments made by Samuel Davidson, of Greece, near Rochester, N. Y., published in the recent volume of transactions of the N. Y. State Agricultural Society:

About the middle of June, 1844, I finished breaking up a field containing nine acres, (chained;) harrowed the same about the middle of July, and about four weeks after dragging, I cross plowed the same; after plowing, I harrowed it again, and on the 10th of September I finished plowing the third and last time; after which, I divided the field into six parcels, of which the following is a diagram, and treated as hereinafter mentioned:

No. 6 contains 380 square rods. — 106 bushels and 14 pounds. — Part flint, and part bearded Tuscany.	No. 3 contains 153 square rods. — 30 bushels 47 pounds. — All flint.	No. 2 contains 256 square rods. — 42 bushels 32 pounds. — All flint.
No. 5 contains 315 square rods. — 77 bushels. — All bearded Tuscany	No. 4 contains 126 square rods. — 21 bushels 20 pounds. — All flint	No. 1 contains 210 square rods. — 37 bushels 20 pounds — Part flint and part bearded Tuscany.

No. 1. Sowed as above prepared.

No. 2. I put on sixteen bushels of horn shavings.

No. 3. I put ten bushels of horn shavings and fifty bushels of leached ashes.

No. 4. I put fifty bushels of leached ashes.

No. 5. I put one hundred bushels of leached ashes and one barrel of salt; and on

No. 6. I put one hundred bushels of leached ashes, one barrel of salt, and twenty bushels of horn shavings. The above were all applied to the ground before the wheat was sowed.

On the 19th of September, I sowed my wheat, which was all well brined and limed, and all harrowed the day it was sowed; and on the seventh day of July last, I commenced harvesting the above, (which was fully ripe for the sickle,) and in harvesting, putting in the barn, threshing, measuring, and weighing, the several parcels were kept separate — and the products of each piece is set in its proper place in the above diagram.

The whole expense of salt, ashes, and horn shavings, was eight dollars and forty-five cents, on the ground; two days' work with a team, in spreading the ashes, three dollars—which was done with a shovel and out of the cart, one day sowing the salt and horn shavings, seventy-five cents. The whole amount of extra expense (from the usual course of fallowing without manure,) does not exceed twelve dollars and twenty-five cents.

The two varieties of wheat, the flint and bearded Tuscany, as remarked in the diagram, weighed as follows: Flint 64 pounds to the bushel, and Tuscany 66 pounds.

As much has been said in agricultural journals about guano, and its fertilizing properties, ascertained from analysis, I have come to the conclusion that every farmer may make some tons a year of an equal fertilizer, and at a trifling expense per ton, compared to guano.

Within the last twelve months, I have prepared and applied several tons with satisfactory results. One instance I will here state, after telling the manner of preparing the above mentioned substitute.

To one barrel of human urine, I add six pounds of sulphate of magnesia; after dissolving the salts. I mix this with as much dry gypsum as will form a mass about the consistency of leached ashes, of this I apply three bushels per acre, to grass or plowed land.

On the first of May last, I commenced plastering with dry plaster a field of six acres, (old meadow;) on the first acre I put three bushels of dry plaster; the next two acres I put the above preparation three bushels per acre; on the balance of the field I put dry plaster, three bushels per acre; I then turned the sward over and prepared it with the harrow for corn, and planted it. When the corn came up, I put dry plaster over the whole alike, and tilled it all alike. The last of September I chained off an acre of that which had the compound on, and another beside it of equal quantity of soil, and each were husked separate: the first yield was one hundred and twenty-two bushels, and the other ninety. So my thirty-two bushels did not cost to exceed one cent per bushel.

Greece, Monroe co., N. Y.

Potato Crop blasted by "Cronking."

There is a good deal of point in the following remarks, which we copy from the Massachusetts Plowman:

MR. EDITOR: — Seeing so much in the papers about potatoes, rot, blight, mildew, &c., I thought I would put in my oar. The potatoes in this vicinity are first rate; in fact they never looked better, and judging from present appearances the yield will be enormous; not a particle of rot has been seen, and unless some unforseen circumstances should intervene, there will be treble the quantity this than what there was last year. — The fact is, sir, there are many persons who do little else but get up a panic, and cry mad dog; and when they have got up a breeze, turn round and with a very long face wonder what all the noise is about. Now, sir, it is their business, and they get well paid for it. I know of one in this neighborhood of the same sort; he tried the same game about his potatoes rotting, &c., but come to get at the truth, he had found one rotten potato, and on inspection it proved to be one of the old seed. I had a few hills dug last week, and the potatoes from the first two dug, weighed 14½ lbs., planted 2d of June, manured well in the hill, being 2 months and 2 days since planting; they were the blue and the calico potato. I have no doubt but that the rot has appeared in many places, and it is attributed to various causes, and there are many remedies suggested; as to mowing down the vines, I think it will be a cure for some, and a kill for others; in shady situations and low land, it will do, but in higher and more exposed situations, it will not do; the potato wants the vine to protect it from the rays of the sun, &c.

My friend A., of Dorchester, in conversation

with him a few days since, said his potatoes were rotting fast; he had mowed a row and left a row throughout a large potato patch; in those hills not mowed, about one-third were rotten, and in those mowed, two-thirds were rotten, and to use his expression, he had tried mowing to his satisfaction. Many potatoes rot by being planted in low and wet situations, by being buried too deep, and in some cases not deep enough; these are all laid to the great potato destroyer, or disease! when in fact it is no kin to it; we must expect rot this year; we have had large quantities of rain, and the sun has also been very powerful.

I believe there will be plenty of potatoes this year, and some to spare; if writing could have done it, potatoes would have been a thing that was, but is not. I was much amused at a writer in one of your most respectable journals last week. He says, that in a few weeks, *not a hill* of potatoes will be found but *what will be diseased*, and that the good old dsih of *codfish and potatoes will be a thing not to be found.* This, sir, is what I call a wholesale, sweeping declaration; he not only takes in the land, but the ocean. Rosse's great European telescope is not a circumstance to the vision of this gentleman, and he is but one of a thousand who says the same; if I thought with this writer, I should be actually afraid to eat a potato. It is a wonder to me that some cute Yankee does not get up a panacea, amongst the thousand and one nostrums got up by the quacks, and spectral beings of the present day; should any such cure-all appear, I hope the gentleman writer will be favored with the first dose, and give the rising generation the benefit of his profound reasoning.

Now the most of these sayings are for the benefit of speculators, &c.; they would make the best of scarecrows for our cornfields. I say, sell your potatoes when you can get a fair profit—not do as neighbor Graball did last year; he was offered 80 cents, cash, for his potatoes, but refused to sell for less than 90 cents; the consequence was that six weeks since I saw him offering the same potatoes at 50 cents and they were a drug at that.—The best of Chenangos are now offered here at 30 cents per bushel, not that we are afraid of losing them by the rot, but we think it a fair equivalent for our money; my maxim is to live and let live, and by so doing we need not fear but that there will be potatoes enough for the million.

Yours respectfully,

LIVE AND LET LIVE.

Canton, August 17th, 1846.

From the Genesee Farmer.

Forests--Their Influence on Climate, &c.

The cupidity of man is no where more inconsiderately manifested, no where seen in a more lamentable point of view, than in the injudicious, often wanton, destruction of the forests of a country. Reckless, and perhaps ignorantly so, of consequences, he prostrates acre after acre, with the sole view of hoarding up wealth, even when he has already more perhaps than he is capable of enjoying. It is true, the immediate wealth of the country is thereby increased, and we have become a rich as well as a great nation; but posterity will suffer the fruits of our folly, or to say the least, of our imprudence, and regret that we did not rather leave them *wood* than *money*. Even we are already beginning to suffer the fruits of our own cupidity and mismanagement; while, judging from present appearances, we shall leave to posterity, not a wilderness, but a desert. I am aware that these considerations will have little influence on those who 'live only for themselves;' but certainly that man is not to be envied, whose whole aim and object in living are confined within the narrow limits of self.

It is not my design to consider the subject exclusively in relation to posterity, but rather to offer a few remarks on the influence of forests on climate, and to endeavor to show that the climate of a country is essentially changed by the destruction of its forests. The first effect thereby produced is to destroy the uniformity, or rather the equability of a climate. In Germany, the destruction of the forests, and the draining of the lakes, it is said, have tended to render the climate warmer. This increase of temperature must evidently be confined to the summer season, for reasons which will appear in the sequel. In the Cape de Verd Islands, the destruction of the forests has tended to render the atmosphere sultry; and the once delightful climate of Greece, of Italy, and of many other countries, has suffered from the same cause. In our own country, who does not remember when our climate was more equable and uniform than at present. Our winters were cold, it is true; but they appeared and disappeared in their proper season; and the excessive heat of our summers was modified by the cool and refreshing forest breezes. Our springs exhibited the gradual and beautiful transition from winter's cold to summer's heat, a phenomenon now rarely witnessed in its pristine beauty.

Immediately connected with the effect upon the atmosphere, and a consequence thereof, is its effect upon the earth. In all countries where observations have been made, it is found that the springs and streams have greatly diminished, and in some countries, almost entirely 'dried up.' Such has been the effect on those of the Cape de Verd Islands, mentioned above, many of which have, since the forests have been destroyed, entirely disappeared; and the writer well remembers the time when several streams in one of our eastern counties of this State, so lately as the early part of the present century, were of sufficient size and uniformity to render them valuable as mill-streams, and on which a number of mills were erected, but which are now entirely dry during a large portion of the summer, and of so little value for economical purposes, that nearly all the mills have been suffered to run to decay. Several springs also, which then furnished a plentiful supply of water during most of the year, now seldom flow during a large portion of the summer season. I might also add the total or partial failure of wells, of late so frequently complained of in different parts of the country, especially at the east. Wells that had never been known to fail before for perhaps half a century, or more, have within the last few years evinced symptoms of a decline unknown in their early history.

Another effect attributable in a great measure to the same cause, is the frequent and severe drouths witnessed almost every season in those countries and states where the forests have been extensively destroyed. Witness those terrible drouths and consequent famines that have of late years visited the Cape de Verd Islands. Witness also those that have lately visited our own eastern States, and the eastern portions of this State. I do not mean to say that these effects are to be attributed entirely to the destruction of the forests, but I have no doubt this is one, and a principal cause.

Another effect attributable to the same cause, and a plain proof of a change of climate, is the difficulty of raising fruit and winter grain. Who has not observed the great change in this respect? The writer well remembers the time when winter wheat was raised in the eastern part of the state, as abundantly and as easily as in the western. The farmer had only 'to put his seed into the ground,' in the proper time, and he felt sure of an abundant crop. No wheat (or very little, and that with great difficulty,) is now raised in that part of the State. This cannot be attributed to the exhaustion of the soil, for two reasons—first, because wherever the experiment has of late been tried, the fall growth is good, but it is killed during the winter and spring; and second, because even on well manured, or entirely new soil, the result is very nearly the same; the autumn growth is abundant, but it cannot withstand the severity of winter. The same effect begins to manifest itself in this part of the State. In regard to fruit, especially plums and peaches, every one who has given attention to the subject must have observed the change. Plums have either entirely disappeared from the older parts of the country, or are raised with great difficulty, and peaches are fast following in train. These things, as already stated, are not the effect of exhaustion in the soil, but of wintry exposures; in other words, of a change of climate. It appears from the best information obtained on the subject, that the climate of this country is gradually becoming colder; and whether it be true or not, that the heat of summer is greater than formerly, it will follow that the winter's cold must be greater.

'But,' it may be asked, 'how does the presence of forests prevent these effects, or their absence (destruction,) produce them?' We answer,

1st. They protect the earth from the effects of severe frosts. It is well known that frost never penetrates so deeply into the earth, in forests, and their immediate vicinity, as in the open fields. This results partly from the protection they afford against the action of winds, and partly from their preserving the uniform depth of the snow.* Hence the greater amount of forest in a country, the greater the protection. Hence, also, even a small number of trees scattered through fields, and along roads and fences, will, by checking the force of winds, contribute in some measure to the same effect. And how easily might the number of such trees be multiplied, not only without injury to the farmer, but even to his manifest advantage, as well as to the great beauty and advantage of the country.

2d. They modify the intense heat of the summer air by evaporation from the leaves. Plants and trees absorb moisture from the earth, much of which, incapable of being appropriated to their use, is thrown off by their leaves. Their leaves are their organs of respiration, and by imparting moisture to the atmosphere, they mitigate its intensity and tend to equalize its temperature.—We have a familiar illustration of this in the cooling of the air in our rooms in hot weather, by sprinkling water upon the floor. Hence even scattering trees will contribute their proportion to the same effect. This is evident from the fact that orchards are cooler than naked fields; an effect attributable not wholly to the shade, but in part also to the moisture thrown off by the leaves. Hence the difficulty of drying hay in orchards.

3d. From whatever cause it may happen, I believe it is true, that more water falls in woody countries than in those that are divested of their forests. This, together with the protection which the forests afford against evaporation from the surface of the earth, and their influence in checking the violence and effect of winds even in summer, operates to prevent severe drouths, and consequently, the drying up of streams and springs. It may also be remarked, that the failure of these in time diminishes the quantity of water raised by evaporation from the earth, and thus tends to promote drouth.

If what has been said above be true, we see the duty which people owe both to themselves and to posterity. That it is true in the main, there can be no doubt. We infer, then, the duty of every one who has the means, to promote the cultivation of all kinds of trees that may be either useful or ornamental; not only fruit, but forest trees. And we earnestly request all owners of wood lands to exercise a judicious oconomy in the management of them, both in regard to quantity and arrangement. Lands should always be cleared with reference to the direction of prevailing winds, and every unproductive spot of land should remain untouched. That man can hardly be forgiven, who from mere mercenary motives, cuts down nearly all the timber from his 100 acres, (more or less,) reserving, as he very complacently tells us, enough for his own use; much less he, who sweeps away every thing in the shape of a tree, (except, perhaps, a few fruit trees,) from every part of his premises, not even sparing the shade trees by the wayside. By such management, or rather mismanagement, he not only injures himself, but, to the extent of his influence, the whole community. How much better would it be for every inland country, if the clearing of the lands had been subjected to some wholesome restraints, or pursued upon scientific principles.

Again, I might argue the importance of preserving and promoting the growth of trees, on other grounds than those of interest and utility. The barren and desolate appearance of a country divested not only of its forests but even of its scattering shade trees and parched with drouth,

* Snow, forest trees, and shrubs, greatly check the radiation of heat from the earth.—Ed.

is anything but inviting to a traveller or a man of taste. What an uninviting world would this soon become, if its physical affairs were regulated according to the taste or rather the want of taste of some of its occupants! Even in its fallen state it has not lost all its primitive beauty, and if man would only "keep it and dress it," it might even now be made almost a "garden," both in beauty and productiveness.

I might also urge our duty to posterity. What will the future generations do, if the present shall continue the present system of destruction? I know of no reason why the owner of a valuable farm must necessarily clear nine-tenths of it for the purpose of accumulating property, even for his children. Does he not see that wood-lands are more valuable in almost any part of the country, than others? Will he not then better consult the interests of his children by leaving them lands in a state of nature, than in a state of exhaustion? It is true, *we* may not suffer for want of fuel, (though we may suffer other evils;) but where is our philanthropy? where our benevolence, if we are willing to sacrifice the interest of posterity to our own cupidity?

We often complain of physical evils. Some of these are evidently beyond our control; others are doubtless caused, or at least, greatly aggravated, by our own injudicious management. It is true, however, in physics, as in socials and morals, that he who violates a law must suffer its penalty. The time will perhaps arrive when this subject will be better understood; but in order to accomplish this much desired result, it is necessary that those who desire it should speak out on the subject. H.

Fairport, N. Y., March 20, 1846.

[*Gennesee Farmer.*

Color of Apples.

In all of my horticultural reading, I do not think I have ever seen anything said on the relative color of the twig, and that of the ripe apple of the same tree, and for the sake of the curious, I will here remark, that nine times out of ten the color of an apple may be determined by the twig of the tree in the absence of its fruit.

To set this subject before the readers, we will say there shall be but two colors in apples; one red, and one yellow; all those that are striped, dashed, spashed, marbled, washed, or blushed, shall be called red; and those that are green, white, or yellow, without red, shall be called yellow.

The examiner will now take the annual shoot of last year's growth, after it has ripened, and with a sharp knife split or rather shave off the outer covering of the bark, and gradually approach the inner bark, and if the tree bears red apples, the inner coat of the dark outer covering will be red. If this coloring matter be of dingy or sooty red, the apple will, most probably, be yellow with a forced blush; but if the forced blush is bright, the red in the twig will also be cleared. And, on the contrary, if the bark of the twig shows no sign of red, we may readily predict that the apple of such tree will be yellow, white, or green. If the inner coat of the bark be very yellow, the apple will be yellow-fleshed; if pale yellow, the flesh of the apple will be yellowish-green; if green, the flesh of the apple will be white.

The foregoing colors are somewhat changed by the frosts of winter, but, in a general way, hold good. — *R. Ragan, in Western Far. & Gard.*

A Farmer's Barometer.

Mr. Editor: — As the season of haying and harvest will soon be upon us, and to many it will be of importance to know how to predict a storm without the expense of purchasing a Baromter, I send you a description of an instrument which answers every purpose.

Take a small stick about three feet long, a trifle smaller at one end than the other; at the large end tie a vial filled with atmospheric air, tightly corked or sealed. This should then be suspended by a string, so that it will balance in ordinary weather. When the phial sinks down, or the small end rises up, a storm may be expected; and on the contrary, when the small end sinks, fine weather will insue. The philosophy of it is this: The air in the vial always remaining the same, rises or falls acccording as the atmosphere is heavier or lighter—acting on the same principle as the mercury in the Barometer tube. This is a very simple instrument. Any person can make one in a few minutes, and it may save him considerable trouble. — *F. W. L., in Genesee Farmer.*

OHIO CULTIVATOR.

COLUMBUS, OHIO, SEPTEMBER 15, 1846.

To Readers and Correspondents.

☞ Absence of the editor must be an apology for any defects that may appear in this number of the Cultivator. It is the first time he has ever claimed this indulgence of his readers in Ohio.

Mr. Bateham was sick nearly all the time that elapsed between the date of our last number and the day that he left for New York, so that he was not able to write out the notes of his northern trip, and several other articles designed for this number. He hopes to return, with recruited health and spirits, in time to edit the next number — though it will perhaps be two or three days behind its proper time. He would thank his friendly correspondents for a little more aid just now.

Horticultural Exhibition at Columbus. — Owing to the Secretary being engaged in a law case, the proceedings could not be prepared in time for this number.

Green! — The man who sends us a communication, puffing a flock of sheep that we never saw, without giving his name or paying postage! must be *verdant* to expect us to publish such a letter.

Inquiries of sundry kinds are on hand, but must necessarily be deferred for the present.

Publications will be noticed in due time.

Thanks are due to Hon. C. Delano, for a number of public documents sent us before and since his return from Washington.

The weather has been remarkably warm, with frequent rains, in this region, of late. Vegetation generally looks very green again.

Planting Strawberries. — Now is a first rate time for setting strawberry plants. The ground being warm and moist, they will take root immediately, and produce a fine crop next spring. Mr John Burr, on the southeast side of the city, has all of the best varieties for sale.

That 'Extract of Coffee,' advertised in this paper, is said to be a wholesome and pleasant *money-saving* beverage. Capt. J. T. Blain has received a lot of it for trial and sale in this city.

Honor to our 'Little Farm!' — The Columbus Horticultural Society awarded us the premium on 'Irish potatoes,' at its late exhibition — namely, a volume of that highly esteemed work, the Ohio Cultivator. We expect to derive much pleasure from its perusal. There are a few more of the same sort left!

Columbus Horticultural Exhibition.

To our extreme regret, we were deprived of the pleasure of participating in this festival, by severe indisposition. We had a glimpse of the show, however, and it was very beautiful — quite cheering to the heart of a sick man. The display of fruits quite exceeded our expectations, especially in the size and beauty of the specimens. Apples, peaches, and plums, were in the finest profusion; and, excepting in the number of varieties, we have never seen them excelled. Of flowers there was quite a deficiency, our gardens being unusually bare at the time — this made a rich contribution of choice roses, &c., by our friend Sprague, of Newark, exceedingly welcome and timely. We regret that it is not in our power to speak of the exhibition more in detail. The list of articles exhibited and report of the premiums awarded will be given in another column. It is evident that the display has done much good by means of awakening interest in the minds of the public; and we shall be disappointed if next year does not produce a show far exceeding this, provided the season should prove as favorable. In flowers and floral ornaments especially, we are sure the ladies of Columbus will do themselves greater honor.

At a meeting of the American Agricultural Association, last winter, Mr Amory Edwards, an American merchant, who had resided some years in Peru, stated that the weight of fleece yielded by Alpaca sheep, is about 12 pounds per head, and that large quantities of the wool are exported from Peru to England, where it brings about forty cents per pound. The animals cost about five or six dollars per head in Peru — their flesh is highly prized as food.

LADIES' DEPARTMENT.

Making Preserves.

To Clarify Syrup for Sweetmeats. — For each pound of sugar, allow half a pint of water.

For every three pounds of sugar, allow the white of one egg.

Mix when cold, boil a few minutes, and skim it. Let it stand ten minutes, and skim it, then strain it.

Brandy Peaches. — Prick the peaches with a needle, put them into a kettle with cold water, scald them until sufficiently soft to be penetrated with a straw. Take half a pound of sugar to every pound of peach; make the syrup with the sugar, and, while it is a little warm, mix two-thirds as much of white brandy with it, put the fruit into jars, and pour the syrup over it. The late white clingstones are the best to use.

Peaches (not very rich). — To six pounds of fruit, put five of sugar. Make the syrup. Boil the fruit in the syrup till it is clear. If the fruit is ripe, half an hour will cook it sufficiently.

Peaches (very elegant). — First take out the stones, then pare them. To every pound of peaches, allow one-third of a pound of sugar. Make a thin syrup, boil the peaches in the syrup till tender, but not till they break. Put them into a bowl, and pour the syrup over them. Put them in a dry, cool place, and let them stand two days. Then make a new, rich syrup, allowing three quarters of a pound of sugar to one of fruit. Drain the peaches from the first syrup, and boil them until they are clear in the last syrup. The first syrup must not be added, but may be used for any other purpose you please, as it is somewhat bitter. The large white clingstones are the best.

To preserve Quinces whole. — Select the largest and fairest quinces, (as the poorer ones will answer for jelly). Take out the cores and pare them. Boil the quinces in water till tender. Take them out separately on a platter. To each pound of quince allow a pound of sugar. Make the syrup, then boil the quinces in the syrup until clear.

To preserve Apples. — Take only tart and well-flavored apples, peel, and take out the cores without dividing them, and then parboil them. Make the syrup with the apple water, allowing three quarters of a pound of white sugar to every pound of apples, and boil some lemon peel and juice in the syrup. Pour the syrup, while boiling, onto the apples, turn them gently while cooking, and only let the syrup simmer, as hard boiling breaks the fruit. Take it out when the apple is tender through. At the end of a week boil them once more in the syrup.

Pears. — Take out the cores, cut off the stems, and pare them. Boil the pears in water, till they are tender. Watch them, that they do not break. Lay them separately on a platter as you take them out. To each pound of fruit, take a pound of sugar. Make the syrup, and boil the fruit in the syrup till clear. — *Miss Beecher's Domestic Receipt Book.*

French mode of Making Apple Butter.

In France, a kind of jam, or apple butter, called *raisine compose*, is prepared by boiling apples in unfermented wine. The must or wine should be reduced by boiling to one half its bulk, to be continually skimmed as fresh skum arises, and af-

terwards strained through a cloth or a fine seive. The apples are then pared, cut into quarters, and put into this liquor (raisine) and left to simmer gently over a fire, with a continual stirring with a wooden spatula or slice, till the apple becomes thoroughly amalgamated with the liquor, and the whole forms a kind of marmalade, which is extremely agreeable to the taste.

When prepared in the northern departments of France, the raisine, after the first boiling, skimming, and straining, is set in a cool place for twenty-four hours, when a saline liquor, like a scum, appears on the surface. This is removed and the liquor strained, before it is mixed with the apples, as above. This scum consists principally of tartaric acid, which would spoil the raisine, and prevent it from keeping sweet, but which is not perceivable when the grapes, from which the wine is made, have been ripened in a southern climate. The raisine, when properly prepared, is sweet, but with a slight flavor of acidity, like lemon juice mixed with honey. The best raisine is made in Burgundy. In Normandy, a similar marmalade is composed of cider and pears, much resembling the "apple-butter," or "apple-sauce," of the United States; but it is not so good as the raisine, being apt to ferment. In some cases, the pears are put into an earthen vessel without water, and placed in a baker's oven, after the bread has been drawn, previously to mixing with water.

The best raisine is considered very wholesome, particularly for children, who eat it spread on bread, and for persons in delicate health, whose stomachs will not bear butter. In Italy, the raisine is eaten with *gnocchi* and other preparations of Indian corn, and with maccaroni, to give a flavor to these dishes. There is nothing better to make a dinner relish, and we would always have it, or apple, or cranberry sauce, if possible. —[*American Agriculturalist.*

Domestic Items for September.

To Mango young Muskmelons, or any other small melons — put them into strong salt water for twenty-four hours, then open them, take the seeds out, and have ready some horseradish grated or sliced, some mustard seed, some garlic, cloves, alspice, red pepper pods, a little mace, which mix well together; put in the melon small cucumbers, onions, beans, tomatoes, then fill with the fine stuffing; sew the melon together again, lay some grape vine leaves in your kettle, put the mangoes in, and let them boil for twenty minutes; tie close in jars, and keep in a dry place.

To Pickle Red Cabbage. — Chose two firm red cabbages, shred them very fine, first pulling off the outside leaves, mix with them nearly half pound of salt, tie it up in a thin cloth, and let it hang for three hours, to drain, then put it in small jars; boil, in a quart of good vinegar, three bits of ginger, one pod of pepper, quarter of an ounce of cloves, one pod of garlic, and pour it over the cabbage boiling hot.

Tomato Ketchup. — To one peck of tomatoes, one tea cup of mustard, fine, one of vinegar, one of moist sugar, one table spoon of cayenne, same of black pepper, two pods of red pepper; boil it to the thickness of cream; then strain it through a sieve, add a tea cup of good brandy, and when cold, bottle as usual.

A. Virginian.

Columbus, September 3, 1846.

Subsoil Plowing. — The editor of the Farmers' Visitor says, that by using the subsoil plow, his crops of potatoes were increased last year one third; that where the subsoil followed the other plow, three baskets were gathered to two where it was omitted — the same kind and quantity of manure being used in both cases. At two hundred bushels to the acre, is a gain of three hundred bushels on six acres of land; these, at 50 cents per bushel, would amount to $150 for subsoiling six acres in a single year, to say nothing of the gain on the crops for the next half a dozen years. The difference upon each farm of any size, would, in twenty years, amount to a fortune.

Why is it? — A Cincinnati editor says: 'A speculator who buys largely of the producers remarked to us, that the first thing he looked for when he went into a man's house to purchase, was a newspaper. If he saw none, he was sure of a good bargain.

Importation of Alpacas.

It is stated, in the Worcester Transcript, that a gentleman of New York — whose name is not given — has recently imported a small flock of Alpaca sheep, and put them on to a farm at Ashfield, in Berkshire county, Massachusetts, where they appear to be doing very well. We believe, also, that an agent has been furnished with funds and sent out to Peru, by a company in New York, for the purpose of importing a large number of these beautiful animals. There is no longer room for doubt, therefore, but that the experiment will soon be fairly tried, of making Alpaca wool a branch of our staple products.

We make the following brief extracts from an interesting series of articles on the natural history and management of these sheep, published in the current volume of the American Agriculturist:

GEOGRAPHICAL DISTRIBUTION.

The Alpaca, in its natural habitat, in common with its congener the Llama, abounds on the Andes, where its absence or presence is observed, as the summits of these vast mountains become elevated or depressed. Thus it ranges considerably below the line of perpetual snow, from Chili to New Granada, (but not Mexico,) without reaching the isthmus of Panama, at which point the Cordillera has a less elevation than is suited to its nature and wants.

The point nearest to the equator at which Andes sheep were originally noticed, is said to be Rio Bamba, situated in latitude 1° 38' S., about ninety miles southwest of Quito, and not far from the snow-capped mountains of Chimborazo. The town stands 11,67[illegible] feet above the level of the sea, to which elevation the temperature of the air corresponds.

Although, from the point above mentioned, across the equator, the climate becomes milder, and vegetation more abundant, it has been remarked that the wild species do not pass the line, but continue stationary there — a phenomenon for which some Peruvian writers have endeavored to account, by alledging that the *ycho* or *ichu* plant, a coarse grass, and the favorite food of both the tame and wild species, does not extend further towards the north.

It is astonishing that the temperature of the air on mountains so peculiarly situated, and exposed to the full blaze of a vertical sun, should be so much chilled as almost to present the desolate aspect of the arctic regions; and yet such are the tracts of land upon which the Andes sheep abound and thrive — the flocks, more especially those of alpacas, being still, comparatively speaking, considerable in the vicinity of Rio Bamba, where the inhabitants evince a great aptitude for woollen manufactures, and carry on a trade in the raw material. Of alpaca and vicuna wools, the women knit stockings, colored cloaks, and also gloves equally ornamental. *Ponchos*, or men's surtouts, are woven in colors, and of so delicate a texture, as to be worth $700 each. They are also used throughout Peru as a riding dress, by the wealthiest ladies.

Along the extended range above named, the tame breeds were left to browse. The sheltered part of a hill, the bottom of a dale, or the furzy heath, were their favorite haunts. There they picked up their scanty and scattered food, under the lower boundary of the snow, ascending as it disappeared from the surface. Sometimes they fed on the mosses which fringe the rocks, and plants growing on the hillocks, or would descend the slopes and enter the *ichuales* (pastures of the ichu plant); while in the higher and more secluded regions, reaching nearly to the summits of the lofty chain, as well as on both sides of the double line which it assumes in Peru, there dwelt the vicuna and guanaco in a wild state, and far from the abode of man, hunted only for their flesh and skins.

The comparatively small size of Peruvian sheep, as well as of the vegetable forms by which they are surrounded, clearly indicates that the climate of the Andes is not favorable either to animal or vegetable growth. It has also been remarked, that there the human species is subject to the same rule — man decreasing in bulk and stature in proportion as he dwells near the mountain summits. In Peru, the winter sets in towards June, and is severely felt on the highlands, where the snow remains upon the ground six, and in some places eight months in the year.

As soon as the narrow and green strip of land bordering upon the Pacific is passed, the traveler begins to ascend the slopes; and when he attains the first table-land, observes a complete change in the climate and the appearance of vegetation. Except in the *yungas*, or hollows, where an alluvial soil has been collected, and where the Indian plants his sugar-cane, banana, and esculent roots, the country wears a naked and barren aspect.

Here, at an elevation of from 8,000 to 12,000 feet above the level of the sea, the Peruvian tends his alpacas and llamas, allowing them to range at the foot of the snowy cliffs called *punas*, or to wander on the *paramos*, or heaths, where they derive subsistence from the moss and lichens growing on the rocks, or crop the strong grasses and tender shrubs which spring up upon the flats, favored by moisture. On these commons, the animals may be said to shift for themselves, exposed to all the rigor of the elements, and receiving no food from the hand of man. The shepherd only visits them occasionally; yet such are their gregarious habits, that the members of one flock seldom stray away and mix with another, being kept in a good state of discipline by the old ones, which know their own grounds, and become attached to the place of their nativity, to which they return at night, evincing an astonishing vigilance and sagacity in keeping the young ones together, and free from harm. Hence there is no need of their being marked; and so great is the intelligence of some *punteros*, or leaders of a flock, that a more than ordinary value is, on this account, attached to them by the owner, part of whose duties they perform.

The most valuable breeds are said to come from the central provinces; and here it may not be irrelevant to observe that there are two varieties of alpacas, different in size, figure, and fleece. The breed called *coyas* is the most diminutive, and is esteemed for the smallness of bone and symmetry of form. It is chiefly confined to the Cusco range of mountains, more particularly to that part of it intervening between the ancient city of the Incas and Haumanga. It is thought to be a remnant of the old royal flocks, or those once owned by the priests of the sun, who are represented as having the choicest breeds. That territory was, besides the principal theatre of agricultural operations, the seat of power, and the centre of Peruvian civilization.

DESCRIPTION, HABITS, FOOD, ETC.

The Alpaca, when fully grown, is about thirty-seven inches high to the shoulders, and fifty-nine inches to the top of the head. It possesses many properties in common with the llama — belongs, as we have shown, to the same natural family, to the same country, possessing a similar disposition and manners, and bears much resemblance in figure, but is smaller in stature. Its legs are shorter, with larger muscles, and its wool finer and more abundant; but it is less robust in its habits, being able to carry a continuous burden of only fifty to seventy pounds.

In a wild state, it is never known to associate with any other animal, but keeps together in herds of one hundred or more in number, feeding, through choice, on a sort of rushy grass or reed, called *ycho*, which grows in abundance on its native hills, where, it is said, these animals are never known to drink, so long as a sufficiency of green, succulent herbage, can be obtained. They resort to a particular spot to drop their dung, which greatly resembles that of the goat, the sheep, or of the giraffe, and which often proves fatal to them, from betraying their haunts. When domesticated, they possess the same gregarious habits, and are strongly attached to their birthplace, to which they return at night, evincing little or no inclination to stray away, or to mix with other flocks. They are gentle, docile, and contented in their dispositions, and are as readily restrained as the common sheep, with which, it is said, they perfectly agree. They adapt themselves to almost any soil or situation, as we have already shown, provided the heat is not oppressive, and the air is pure. They will live and thrive on the same sorts of food as eaten by cattle and sheep; but the inferior kinds of browse, grass, or hay, with a due proportion of potatoes, or other succulent roots, are preferred to rich pasture and farinaceous grains. Too liberal an allowance of rich and stimulating food to an animal extremely abstemious, and habituated to live on coarse and light herbage, and that in small quantities, cannot be regarded otherwise than injurious.

A wise man will speak well of his neighbor, love his wife, and — pay for his paper.

Plain Talk with the Farmers.

We have been well pleased with a series of ably written communications, recently published in the Hillsborough Gazette, and addressed to the farmers of Highland county. We know not who the writer is — but he has adopted the signature of TAYLOR, and he shows up the errors of the farmers in a truly 'Rough and Ready' style. The following specimen constitutes No. 3, of his series, and may be read with profit, by many besides Highland farmers:

GENTLEMEN FARMERS: — The subject of my last number was 'Agriculture, as it is now in this country.' I pointed you to the older settlements in the eastern and southern States, and showed you the consequence of bad farming in that section. I presented you an estimate of the products, the expenses, and the profits of 67 acres of land cultivated in grain by three hands and four horses, and showed you what a vary small profit was made to a hand. If I had rated the land at the owner's price of $20 per acre, instead of $15, the profits would have been about $8 each I adduced this instance, in order to open your eyes, and let you see things as they are. The most of you, gentlemen, ask $20 per acre, or more, for your land; but tell me, 'how much do your farms clear you to the acre?' As much as 70 cents? Where one clears that much, there are twenty who make nothing beyond their victuals and clothes; and much of these latter articles are bought by your wives, and not paid for directly by the marketable products of the farm. Now, I ask, why are these profits so small? Your farms are valuable, but certainly not to you, unless you make more than 70 cents clear to the acre. Indeed, several of you have declared to me that you did not make *one cent* clear. What is the reason? Have you not land enough? The farmer to whom I alluded, cultivated 22 acres to the hand, in grain alone, exclusive of his meadows and other patches. But that was only *one* of his faults.

Those who regard agriculture as they should — who are governed by reason and science in its operations, and who make themselves and their fields rich at the same time — these men will tell you that one hand cannot do full justice to more than ten acres. If he will clear and enclose that quantity as he ought, and cultivate and manure it in such a way as to make it better and better for every crop it yields, he will have but little spare time. I admit that where a man has nothing to do but to plow up his land in the spring, plant it, work it a little afterwards with plows, and gather, he may cultivate, *after a sort*, double that quantity; but it must be done in such a way as barely to clear him six pence a day. Let him who doubts this estimate, make a calculation of his own. Let him ascertain correctly the amount of all his farm products, and then find out what his own labor and his board are worth, what his horse labor and board are worth, what his milling, his wagoning, his blacksmith's, his wheelwright's, his merchant's accounts amount to: subtract these items of expense from his products, and I guess his eyes will open at the profits. He will find that he has labored all the year, for very little more than food and raiment. That is the inevitable result of your present system of agriculture; and it must be so, as long as you continue to practice it. The most of you are working yourselves and your land to death; and by the time your children become grown, you will be ready to step into the grave and leave them ——what? *farms without rail timber or fire wood, and too poor to keep soul and body together.* What then? Why they must sell the walls within which they were introduced to this world; their orchards; their play-grounds; all the dear scenes which chain them to their birth place, and even sell the bones of their fathers and mothers — move to the west, purchase an acre of land to serve just as their fathers had served theirs.

Notwithstanding your fields are a great deal too large, yet, with a little knowledge, and sufficient industry, you might make and save such a quantity of manures as would greatly increase the products of your fields, and remove those poverty kinks which so horribly distort a purse.

I have said that you *cultivate too much land and manure it too little.* These faults would greatly curtail the profits which you might realize under an otherwise good system of husbandry. Let all your other steps be right, yet with *these* faults, you cannot continue to prosper. But when these are connected with the multitude of others which afflict your present system, they must be fatal to profits of any and every kind.

Permit me, gentlemen, to name a few of the errors which mark the agriculture of Highland county; and first,

OF YOUR FENCES. — These are not as they ought to be. True, many of you have good fences; but a majority of you have such as are a downright disgrace to land worth $20 an acre. Your fences should be such as to *answer the purpose for which you made them:* otherwise, they answer a very *bad* purpose, which is worse than no purpose. Your fences should be good, for many reasons — some, of a pecuniary kind, as they secure the products of your labor, and prevent your stock from straying; and some of a moral kind; as when they are bad, they are often the source of much evil among neighbors, producing bad feelings, ill will, and a destruction of those social duties which should characterize civilization. Many of you, gentlemen, are poor men. You rent small farms, such as have little or no pasture on them. You *must* have a horse, and you have no pasture for him; and you can't afford to buy pasturage for him. You turn him into the swamps to feed awhile, or until you want him. He steps or jumps over a neighbor's fence, if fence many such ought to be called. What is the consequence? You must take him out and feed him in the stable, or pay some one to pasture him. You are not able to do that, but you *must*, or that neighbor must repair his fence. What you pay as pasturage in such cases, is so much tribute money to bad farming. Good fences, gentlemen, is the *first* step towards good farming. I don't mean good fences along the public roads only, but good fences all around your fields. This is an essential item in agriculture, while it is lawful for stock to run out. Second, of

DRAINING. — Few of you, gentlemen, seem to have proper views upon this head. *Thorough* draining must ever be regarded as the second requisite to profitable husbandry. To enclose, and manure, and cultivate swamps and bogs would profit nothing. You may ask, 'what is the criterion by which to judge whether land is well drained?' I answer, 'if water stands on the surface of a field three hours after rain has ceased to fall, that field is not sufficiently drained for the cultivation of grains.' This is the Scotch, Flemish and English standard, and hundreds of American farmers have proved its correctness. If I have seen a fair sample of your Highland farms, I do not hesitate to declare that a large majority of them are very imperfectly drained. You have acres upon acres, (much of it enclosed,) stored with every fertilizing ingredient necessary to the production of good crops. But they can be of no service to you until well drained. The draining which most of you effect by plowing is nothing. You plow too shallow — not more, usually, than three inches deep. All below that is close and tight. You thus have three inches deep of crumbled surface. One heavy rain will render that as soft as mush. All that falls beyond that must stand on the surface until it is evaporated. The close, clayey under-soil prevents it from sinking, and you have too little broken surface to absorb it. Hence, from December to April, your fields are sobbed — flooded with surface water. I have seen many of your wheat fields in this condition. When the drying winds of spring, and the hot suns of summer are brought to bear upon such lands, they crack open and become as hard as burnt clay. Having been drowned through the winter, the soil is deadened as it were. It loses that liveliness, that granulating property which is so essential to easy cultivation, and to the growing of healthy crops.

If you confine water on the surface of your fields three hours after it has ceased to rain, I take the liberty to tell you, that field is inefficiently drained and imperfectly plowed, and you should forthwith direct your exertions to remedy the evil.

Warmth, you know, gentlemen, is one of the essential requisites to the germination, to the growth, and to the perfection of all seeds and plants. All *wet* soils are necessarily *cold* soils. The more superflous water you have on the surface, the more rapid is evaporation, and the more warmth is carried off. Now, warmth being so essential to the growth of all plants, you must become losers by the loss of so much of it. Let one of your fingers be kept wet, and the other dry a short time, and you will understand this assertion. Nor can you derive half as much benefit from manures when applied to wet land as when the land is granulous and friable. The surplus water forms a decoction of the manure, and that must remain on the surface until dried up by winds, or wasted by solar evaporation. If you desire to derive *all* the benefit from your manures, you must apply them to well drained fields. Of course I except meadows, they being appropriated to plants which are more aquatic in their nature than tillage crops.

I will next call your attention to the subject of PLOWS and PLOWING. As to the plow, you have worthily availed yourselves of most of the improvements which that important implement has received. You do not plow with a hog's nose, or with a wooden plow, drawn by women, or by 'an ox and an ass,' or by four horses abreast. In this matter, at least, you must confess that you have been benefitted by the knowledge and skill of others; and in doing so, you have acted more in accordance with the agricultural spirit of the age. Except your round pointed, dragging, clumsy shovel, and your hop-skip-and-jumping Smeller, your plows will do. But these are unworthy of use, and should be discarded.

OF PLOWING: — In this vital agricultural manipulation, candor induces me to tell you, gentlemen, you are *lamentably* deficient. I have not noticed more than two fields that, according to my knowledge, had had justice done them in that respect. True, you can all plow, and in such a manner, too, as to raise as much as thirty-five bushels of corn on an acre of land that you ask $25 for. But, gentlemen, plow *poor* land (as much of yours *must* and *will* be, in ten years, without alteration,) as you now do, and you would be brought down to the average of the 'Old Dominion' — fifteen bushels of corn to the acre!!

Pretty large Peaches.

EXTRAORDINARY EXCITEMENT. — *Troy against the World — The largest Peach yet — Beat this who can!* — We stop the press to announce that we have this moment received a Peach from the orchard of Messrs. Knoop & Wolcott, of this place, which weighs ELEVEN OUNCES, and measures ELEVEN INCHES in circumference. This is confidently believed to be the largest peach ever grown in this or any other country. We, last season, traveled through New Jersy, Pennsylvania, Delaware, and Maryland, and saw thousands of baskets of their best peaches, but never before have our eyes been gratified with a sight like the present. It is of the Malacoton variety. Messrs. K. & W. have 'a few more left of the same sort.' Can Dayton, Germantown, Cincinnati, or any other place, beat Troy in the peach line? — *Troy Times.*

HEAR FROM THE BUCKEYE CAPITOL! — We can beat your Troy peach, full *one inch and a half*, and that, too, with a variety raised here from the seed. But we will let our brother of the Journal tell the story. He says:

We do not know what they can do in Dayton, Germantown, Cincinnati, and other parts of the country, but we took from a tree in our garden two peaches that measured nearly twelve inches in circumference, and one was exhibited at the horticultural fair in this place last week that measured twelve inches and a half in circumference. They are called the Vandemark peach, yellow flesh, raised from the seed some years since by MR VANDEMARK, of this city. A fine lot of peaches of another variety was exhibited by F. STEWART, Esq., of this city, several of which, we believe, measured ten and a half to eleven inches. Acknowledge beat, brother STOUT.

AMMONIA IN RAIN. — Any one may satisfy himself of the presence of ammonia in rain by simply adding a little sulphuric or muriatic acid to a quantity of rain water, and by evaporating this nearly to dryness in a porcelain basin. The ammonia remains in the residue, in combination with the acid employed, and may be detected either by the addition of a little chloride of platinum, or more simply, by a little powdered lime, which separates the ammonia, and thus renders sensible its peculiar pungent smell. The sensation perceived on moistening the hand with rain water, so different from that produced by pure distilled water, and to which the term 'softness' is vulgarly applied, is also due to the carbonate of ammonia contained in the former. — *Liebeg.*

Study the Soil.

No young farmer should fail to study the nature and properties of each element necessary to form a fertile soil. To cherish a profound ignorance of the things that combine to make his crops, is to court excessive manual toil, covet poverty, and wed self-degredation. No practical farmer pretends that he can produce a single plant, out of nothing, by dint of hard work. If it really takes something to form a good crop of grass, grain or roots, and that something exists in the soil, is it not obvious that its properties, and abundance or scarcity, should be known to every tiller of the earth?

If we anylize the earthy matter contained in wheat straw, or in the stems of rye, timothy, or corn, we shall find more than half of it, to be a mineral called silica, (pure flint.) If we take a handful of service soil from any cultivated field, and analyze that, it will also found to be contain more than fifty per cent. of the same silicious element, The proportion of silica in the stems of cereal plants varies from 50 to 80 per cent. of all the incombustible matter therein contained. This is about the average range of the proportion of silica in good soil. One of the best that we have lately analyzed, that of Mr. Champion of Rochester, gives the following result:

Water of Absorption,	7.30
Organic Matter,	7.45
Silica,	69.10
Alumina and Oxide of Iron,	8.80
Carbonate of Lime,	5.00
Magnesia,	1 80
Potash and Soda,	traces.
Loss,	0.55
	100.00

By the above it will be seen that flint sand forms a fraction over 69 parts in 100 of the soil. It will also be seen that the capacity of this sample to hold moisture, at the ordinary heat of a summer's sun, is great—giving off more than 7 grains of water in 100 when thoroughly dried. This water abounds in the proper food of cultivated plants; for on treating the soil with pure rain

water, as it falls from the heavens, and evaporating it to dryness, 1.10 grains of organic and mineral elements were obtained. Of this 0.60 was minerals, and 0.50 organic matter. A large portion of the minerals was lime, which was precipitated by oxalate of ammonia. An appreciable amount of magnesia, and traces of potash were found in the watery solution. This soil contains an unusual quantity of *lime*, yielding traces of both the sulphate and phosphate of that alkaline earth.

The application of lime will be of no service, but the use of gypsum to add *sulphur* to the soil, and bones to increase the *phosphorus* in the same, will be advantageous. Of the two fertiltzers, bones are more needed than gypsum.

The analysis of Dea. C. Tenny's surface soil gave the following result:

Water of Absorption,	2.50
Organic Matter,	4.40
Silica,	84.23
Alumina and Oxide of Iron,	7.19
Carbonate of Iron,	1.20
Magnitia,	0.44
Loss,	0.04
	100.00

This is a good soil, but contains more silicious sand, and only one-fourth as much lime and magnesia as are found in the soil of Mr. Champion. It has a smaller capacity for retaining moisture, and less vegetable mold.

One thousand grains of this specimen infused in pure cold rain-water gave a fraction over two grains of soluble matter, one-half of which was orgrnic, and the other incombustible.

As this soil contains less soluble elemants than is desirable, the addition of wood ashes and common salt, in small and repeated doses will be of great service. We say "small and repeated doses," because the 84.23 parts of flint sand in 100 of the soil, will permit a great waste by the leaching of all fertilizers, if applied in large doses at a time. We are dsci edly in favor of feeding cultivated plants as we do domestic animals — first give them such food as they can *assimilate;* and secondly, let them have none to *waste* but enough to form a good growth of bone, muscle and fat. The ash in plants answer to the bone in animals; the gluten, legumin, and cellular tissue of the former, to the muscles, membranes, and tendons of the latter; and the starch and oil of vegetables answers to animal fat.

In our original investigations of the great question; How much of a crop of wheat, corn, or potatoes is formed of matter derived from the substance of the soil? we find, as the means of many experiments, that rain dissolves about equal quantities of what are called organic and inorganic substances in the surface soil. As the solids in a soil must be dissolved before they can enter into the circulation of plants to nourish them, the study of the action of rain water on any given field is, obviously, quite important. Insoluble vegetable or mineral substances can only operate mechanically in promoting or retarding the growth of crops. To increase the solution of silica, which is nearly insoluble, and check the too rapid solution of the very soluble salts of potash, soda, magnesia, and lime, are the great desiderata in scientific agriculture. On many soils, however, much more may be gained by hastening the too tardy decay of vegetable substances. In nine cases in ten, thorough draining will effect this object. Deep plowing greatly favors the decomposition of organized matter by mixing it with the alkaline minerals lower in the earth, and allowing vegetable and mineral acids to become neutralized. A deep, friable soil that will permit rain-water with its ammonia, nitric and carbonic acids, derived from the atmosphere, to pass down by the roots of plants, themselves deep in the mellow earth, and to ascend around said roots by capillary attraction, loaded with such minerals and organic elements as are soluble in the soil, is the *thing* of things, in easy and successful farming.

The same imperviousness of subsoil — often too near the sunshine — which prevents the ready descent of rain and roots into the earth, equally forbids the ascent of moisture in dry seasons of the year. If the reader desires a deep, mellow soil, let him plow deep, and *deeper*, till the object is attained. Let him study faithfully, the *whys* and *wherefores* which have made any plowing necessary for the last 3000 years. Let him investigate the action of those elements in the air called oxygen and carbonic acid, on the insoluble minerals, which the plowshare turns up to the light and heat of the sun. Nor should he overlook the influence of frost, electricity, and other meteoric agents, employed by Providence to fulfil the promise that "Seed time and harvest shall never fail."

Those who may wish to have their surface soil analyzed and not the subsoil, can do so for the small charge of $3, by sending a pound or two of earth in a strong paper, to the office of this paper, or the laboratory of its Editor, in Wheatland.—*Genesee Farmer.*

Preservation of Apples.

Apples intended to be preserved for winter and spring use, should remain upon the trees until quite ripe, which usually takes place at the coming of the first heavy frosts. They should then be plucked from the trees by hand, in a fair day, and packed up immediately in casks, in alternate layers of dry sands, plaster, chaff, saw-dust, or bran, and conveyed to a cool dry place, as soon as possible. The sand or saw-dust may be dried in the heat of summer, or may be baked in an oven at the time required to be used. The peculiar advantages arising from packing apples in sand, are explained and commented upon as follows, by the late Mr. Webster, author of the "American Dictionary of the English Language:" "1st, The sand keeps the apples from the air, which is essential to their preservation; 2d, The sand checks the evaporation or perspiration of the apple, thus preserving in them their full flavor—at the same time any moisture yielded by the apples, is absorbed by the sand—so that the apples are kept dry, and all mustiness is prevented. My pippins, in May and June, are as fresh as when first picked. Even the ends of the stems look as if just separated from the twigs; 3d, The sand is equally a preservative from frost, rats, &c. But after the extreme heat of June takes place, all apples speedily lose their flavor, and become insipid."—*Am. Agri.*

To Prevent Smut in Wheat.

Although we have given directions how to prevent the smut in wheat in a former volume, many of our readers do not seem to have read them, and therefore we repeat them. Make a brine strong enough to bear up an egg, be careful that it is not above blood heat, then let the grain soak in it from one to twelve hours, as is most convenient. While in soak, stir up the grain occasionally, and every time this is done, take off the scum, foul stuff, and light seeds that rise to the top of the brine. As the grain is taken out, spread it on a floor or in the sun, and scatter slacked lime, ashes, or plaster, over it, to dry it. Lime is the best material for this purpsse, if to be had. It will dry in half an hour in the sun, and is then ready to be sown. Copperas water and urine are frequently used instead of brine to soak the seed; but we much prefer brine, as it is cleanly, and never dangerous in application. Some say grain may be soaked 24 hours in the brine without injury; but if it be a thin-skinned variety, we should think it would endanger its germination to soak over four hours or so. It is a good plan to prepare rye, barley, buckwheat, and oats, for sowing in the same way as wheat, especially oats, as they are frequently as liable to smut. — *American Agriculturist.*

Repeal of the British Corn Laws.

We had the gratification in our last of announcing the repeal of the exorbitant and odious Custom House duties which have been so long levied upon the importations of breadstuffs into Great Britain, to the serious injury and often heart-rending sufferings of her people. It is one of the most beneficent acts of the age, and does honor to the men who were instrumental in passing it. The people of Great Britain and Ireland have at length attained the common rights of humanity, and are now enabled to supply themselves with food where it is to be had best and cheapest. We hope henceforth to hear no more cries for bread, from half-famished thousands, when it can be had at a low price from a neighboring country.

It is not, however, as an act of beneficence wholly, that we desire to call the attention of American Farmers to the repeal of the British Corn laws, but as one likely to redound to their permanent interests. We are not and never have been so sanguine in our belief, that their repeal would raise the price of breadstuffs materially on this side of the Atlantic, and if the people of the United States expect any such thing, they will find themselves greatly mistaken; a rise of prices is only to be looked for after a bad harvest in one country or the other. With a widely extended and highly fertile territory, and unprecedented increase of rural population, there is a constant tendency in reasonably favorable seasons, to produce a large surplus of provisions. Now if we were obliged to keep this surplus at home, there must inevitably be a steady fall in the prices of agricultural products, and a greater or less loss every year from the injuries to which such bulky and perishable articles are constantly liable. The ports of Great Britain being now nominally free, we shall easily get rid of our surplus produce, and thus be able to maintain fair prices. If the tillers of the soil will take this fact duly into consideration, they will see that it is likely to be a greater boon to them than fluctuating high prices. — Under the former tariff, Indian corn, one of the largest productions in the United States, was virtually a prohibited article—now it can be exported in large quantities.

Notwithstanding the promising harvest in Europe the present year, it would not surprise us if the exportations of corn, wheat, beef, pork, lard, butter, and cheese, should amount to twelve or thirteen millions of dollars. This amount will be steadily on the increase, and in a few years doubtless approximate to twenty millions; while the freight and charges earned by American citizens will be five millions more — and let it be recollected that those engaged in the transportation of these products are consumers, and not producers. Hence the disastrous effects cannot be so great as apprehended by some, as many of our farmers will grow richer by the sales of their produce, our shippers and sailors will find employment, and the country will still prosper. — *Amer. Agri.*

Plaster on Stable Floors. — 'S. W.' of Waterloo, recommends that every farmer should keep plaster in his stable. I will inform him that, if his floors are of wood, he may find, in a year or two, that a dry rot has progressed under the plaster which may let his horse's foot through a hole of its own size in the plank, though to sight it may appear perfectly sound. Such was my experience, where a box of plaster had stood on my barn floor for about a year or eighteen months.

Catharine, N. Y., April, 1846. L.

Substitute for Potatoes. — A western paper suggests the propriety of growing *artichokes* as a substitute, in some degree, for potatoes — and on the authority of Ellsworth's reports, states that they are better spring feed for hogs, cattle, and sheep, than the potato, at a diminution of cost in production.

Wisconsin Plants. — Mr M. Spears, of Milwaukie, W. T., (in a letter containing a remittance for a club of new subscribers,) says:

'I raised 325 bushels of wheat and 200 bushels of corn, by my own labor, the last season, and found time to collect and preserve 500 plants. I would like to exchange with you, or any other farmers in your region. If there are any farmers who are pleased with the study of Botany, and would like to get some of our Wisconsin plants, I would be glad to exchange. Direct to More Spears, Milwaukie, W. T.' — *Genesee Far.*

☞ A newspaper in a family is equal to three months' time in a school each year. Go into the family where a newspaper is taken, and into those who 'cannot afford it,' and mark the difference in the intelligence of the children, and be convinced.

English News, Markets, &c.

[DATES BY THE BRITANIA, TO AUGUST 19.]

From Willmer & Smith's Liverpool Times.

The state of the weather during the last fortnight has given the greatest uneasiness to the people of this country — more particularly those engaged in agriculture. There have been frequent thunder-storms, with copious falls of rain, which have seriously injured the crops. The sun at times has been brilliant; and, preceding the storms, the warmth ripened prematurely the produce of the fields, which it was found necessary to cut without delay. Any statement of the average produce must, of necessity, be mere guess-work; but there is great reason to apprehend that in various parts of the kingdom irreparable damage have been done to the grain. In the course of another fortnight, however, the harvest will have been completely gathered, and then a more definite result can be arrived at.

The potato blight is general. East, west, north, south, the cry is "still it comes." In Ireland the devastation is general. Everywhere the root is rotten, or progressing towards decay. Science is at fault, and alarm is rife. — As regards society it is serious — as regards the poor it is a melancholy visitation. Under any circumstance, if the Corn Laws had not been repealed in the present session, they would inevitably have been repealed in the next. — Influenced by the bad weather, and acted upon by the destruction of the chief food of the poor, the price of grain is advancing, and the belief is, that it will continue to advance.

Yesterday, at Liverpool, wheat advanced from 6d. to 9d. per 70lbs., United States and Canadian flour 1s. 6d. per barrel, and Indian Corn 3s. to 4s. per 480 lbs. over the rates of the previous week. At these advanced prices considerable business was effected. At Mark-lane, on Monday, the new crop of wheat advanced from 2s. to 3s. per quarter above the previous quotations. The duty on foreign wheat has advanced to 8s. per quarter, and on foreign flour to 4s. 9½d. per barrel.

The produce markets are tolerable active, both for the home trade and for exports. A reference to our ample market compendium will show that the depression which has long been existing in this branch of business has comparatively disappeared.

American Provision. — Hams are now quoted at 35s. to 43s. Lard moves off slowly, kegs selling at 38s. to 4 1s., and barrelled at 35s. to 38s. There is a good demand for beef and pork, and late prices are fully supported. — Cheese, of good quality, is very scarce at this market; the few parcels lately arrived, being of an indifferent quality, have been sold at 35s to 45s. per cwt.

Indian Corn. — The anticipated almost total failure of the potato crop in England, Ireland and Scotland, has caused the price of Indian Corn to raise from 25s. to 32s. a quarter during the last three weeke. The quantity in the Mediterranean is said to be very small. We expect that America will be enabled to reap a golden harvest in the sale of this article in England.

Ornithology. — Mr. John Audubon, the son of the distinguished American naturalist, has recently arrived in England, for the purpose of taking drawings of some specimens of American animals in the collections in this country, in order to complete the work on the quadrupeds of America. The specimens required are principally those from the territories of the Hudson Bay Company, and those brought home by the expeditions in search of a north-west passage. One specimen in the British Museum is supposed to be unique.

COLUMBUS PRODUCE MARKET.

Corrected for the Ohio Cultivator, Sept 1.

GRAIN.			
Wheat, ₱ bu.,	43	a	45
Indian corn,	18	a	20
Oats,	12½	a	13
PROVISIONS.			
Flour, retail, bbl,	2,75	a	2,87
" 100 lbs.,	1,75	a	
" Buckwheat,		a	
Indian meal, bu.	25	a	
Hominy, quart,	3	a	4
Beef, hd. qr		a	
" 100 lbs.,	3,00	a	3,50
" fore qr.,	2,00	a	2,50
Pork, mess, bbl.	8,50	a	9,00
" prime "	6,50	a	7,00
Hams, country, lb.,	5	a	6
" city, cured,	7	a	8
Lard, lb., ret.,	6½	a	
" in kgs. or bls.	6	a	
Butter, best rolls,	10	a	
" common	8	a	9
" in kegs,	6	a	7
Cheese,	5½	a	6½
Eggs, dozen,	6	a	
Maple sugar, lb.		a	
" molasses, gal,		a	
Honey comb, lb.	10	a	12½
Honey, strained,	12½	a	14
POULTRY.			
Turkeys, each,		a	
Geese, "		a	
Ducks, "		a	
Chickens, "	6	a	8
SUNDRIES.			
Apples, bu.	12½	a	25
" dried,	87	a	1,00
Peaches, dried,	2,00	a	2,50
Potatoes,	25	a	
Hay, ton,	3,00	a	4,00
Wood, hard, c'rd,	1,25	a	1,50
Salt, bbl.,	1,75	a	1,81
SEEDS.			
Clover, bu.,		a	
Timothy,		a	
Flax,	75	a	
ASHES,			
Pot, 100 lbs.,	2,75	a	3,00
Pearl,	3,50	a	3,75
Scorched salts,	2,50	a	
Wool, common,	18	a	20
" half bl'd,	20	a	23
" full bl'd,		a	

Portage Mutual Fire Insurance Company,

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CAPITAL TO MEET LOSSES, $100000.

THE Oldest, the Largest, and richest Company in the West. — Agents at most of the principal towns in the State.

CLEVELAND MEDICAL COLLEGE.

THE ANNUAL COURSE OF LECTURES in this Institution, will commence on the 1st Wednesday in November, and continue sixteen weeks. The Faculty is constituted as follows:

JOHN DELAMATER, M. D.
Professor of Midwifery, and Diseases of Women and Children.

JARED P. KIRTLAND, M. D.,
Professor of the Theory and Practice of Physic.

NOAH WORCESTER, M. D.,
Professor of General Pathology and Physical Diagnosis.

HORACE A. ACKLEY, M. D.,
Professor of the Principles and Practice of Surgery.

JOHN L. CASSELS, M. D.,
Professor of Materia Medica, Pharmacy, and Botany.

SAMUEL ST. JOHN, M. D.,
Professor of Chemistry and Medical Jurisprudence.

JACOB J. DELAMATER, M. D.,
Professor of General and Special Anatomy and Physiology.

The Anatomical Rooms will be under the immediate direction of ROBERTSON H. SHELDON, M. D., Demonstrator.

The "*Cleveland Medical College*" has been in existence three years, and although laboring under great disadvantages for want of a suitable building, it has prospered almost beyond precedent in the history of Medical Schools. The first session was attended by 67, the second by 112, and the third and last by 164 students. The next session will be held in our large and commodious new building, which was last year in a very unfinished state, but will be found, by those who shall attend our next course of lectures, in perfect finish.

In possession of an ample and finished building—with our Museums and Apparatus improved, and much more perfectly arranged, it will be the endeavor of the Faculty to make this Institution a *still* more desirable resort for the Medical Student than any *other* previous session. The high, airy, and healthy situation of this city insures, as far as location can influence it, that physical vigor requisite for close application.

The Clinical advantages are very considerable. During the last term, Wednesday afternoon was set apart for the examination of Surgical cases, and operating upon such as required it. The number of the afflicted who resorted here was so large that a single afternoon each week, was found insufficient — and in several instances, Saturday afternoon was occupied in the same manner. Some of these cases were very rare, and many of a highly interesting and important character — and embraced almost all those varieties which usually receive the attention of the Surgeon. As these cases are operated upon and treated gratuitously, the number who resort here, many of them from a distance, is annually increasing, and it is believed that no School in this country furnishes greater facilities for obtaining a practical knowledge of Surgery, and without any extra charge to the student.

A *Library*, containing about 700 vols., many of them rare and valuable works, is open for the use of the class.

The *Museums* are large, and the Apparatus so complete as to furnish the most important means of illustration in the several departments of instruction.

The course will be as thorough and complete as can be embraced within the time occupied, and will include not only the characteristics of diseases in general, but also the peculiarities they assume in the west and southwest.

The necessary expenses of a session here are very moderate.

Fee for the tickets of all the Professors $50. Or if a promissory note is taken, payable in twelve months, and signed jointly with some responsible person, $56. Medical graduates, and those who have attended two full courses in this Institution, are entitled to free admission to all lectures, by paying a Matuculation fee of $3.

Good board, lodging, fuel and lights, may be obtained at from $1 50 to $2 per week.

The Trustees annually appoint a Board of Censors, consisting of five Physicians, selected from among the most able and scientific of the State, whose duty it is to attend and assist in the examination of each candidate for a degree, and vote as to his approval or rejection. The public have in this arrangement, a security that the standard of medical attainments required here will always be high, and that no degree will be unworthily conferred.

JACOB J. DELAMATER,
Secretary of the Medical Faculty.

Cleveland, O., Sept. 1, 1846.

PRINCE'S PREMIUM STRAWBERRIES.

WM. R. PRINCE & CO., Flushing, having devoted great attention to this fruit, now offer the most estimable collection existing in America or Europe, embracing all the choicest varieties recommended by the London Horticultural Society, and the most estimable of other countries, including several splendid Seedlings originated by themselves and others. The sexuality of every variety has been investigated, and such plants and directions will be furnished as will insure abundant crops. They can be transplanted from August to November. There is no such thing as Strawberries becoming barren when properly managed. *Primordian*, the finest and most productive early crimson variety, large, profuse bearer, one of our seedlings, and now first offered, $3 per dozen. *Large Early Scarlet*, $1 per 100. Garnestone Scarlet, $1 for 25 and $2 per 100. *Crimson Pine*, large, fine, and prolific, another of our new seedlings, two dollars per dozen and three dollars for twenty-five. *Crimson Cone*, one of the most splendid, large, bright crimson, high flavor, profuse bearer, unrivalled, $3 for 50 and $5 per 100. Prince Albert, (true sort,) Coul late Scarlet, Iowa, and Willey, one dollar per dozen and two dollars for fifty. Alice Maude, Deptford Pine, Corse's Seedling, Boston Pine, and Buist's Prize, $1 50 per dozen. President and Clara Victoria, three dollars for six. Swainestone, Black Roseberry and Victoria, $1 for 25 and $2 per 100. Black Prince, Georgian Scarlet, Iute, and Bishop's Seedling, beautiful and prolific, $1 for 25 and $3 per 100. British Queen, Myatt's Eliza, Myatt's Pine, Elton and Old Pine, all fine flavored, but poor bearers, $1 for 25 and 2 to $3 per 100. Hovey's Seedling, Bishop's Orange, Ross Phœnix, or Keen's Seedling and Rosberry, 50 cents for 25 and $1 50 per 100. Duchess, Hudson's Bay, and Methven, 1 dol. per 100. Royal Scarlet, Old Scarlet, Melon and Downtown, moderate bearers, 50 cents for 25 and 1 dol. per 100. Hudson, (of Cincinnati,) great bearer, 1 dol. for 25 and 2 dols. per 100. Prolific, large, flat and green Hautbois, 1 dol. for 25 and 2 dols. per 100. White and Red running Alpine Everbearing, 1 dol. for 50, and White and Red Bush do. 1 dol. for 25. Common English Red Wood (erroneously called Stoddard Washington Alpine.) 1 dol. per 100. English White Wood, 1 dol per 100. Very large quantities at a reduction.

Orders, not less than 5 dols. (cash enclosed,) will meet prompt attention.

N. B.—All orders must be sent direct to us, and no plants are from us unless our printed bill and signature accompany them.

Flushing, N. Y., Aug. 15. 3t.

SUBSOIL PLOWS,

Manufactured after the New England approved model, and just the implements for improving heavy soils.

For sale at Martin's Ferry, Belmont co., O.,—*one mile above Wheeling, on the Ohio River.*

WOOD & CATTELL.

EXTRACT OF COFFEE.

THE attention of the public is respectfully invited to this new, valuable, and wholesome article, the Extract of Coffee. We hesitate not to pronounce this the most important improvement that has been made for years, and its excellent qualities have only to be known, in order that they may be fully appreciated by the public. In Western Pennsylvania, part of Ohio and Virginia, it is used in almost every family, and all those who once get the taste of the Extract, will not do without it, on account of the rich and delicious Coffee taste it has.

DIRECTIONS FOR MAKING COFFEE.—Take, to a gallon of boiling water, a table spoon full of Extract, and two table spoons full of roasted and coarsely ground Coffee, boil them the same length of time required to make common Coffee, stir it once, settle it with a little cold water, and a better, cheaper and more wholesome beverage is obtained than that which is made from the pure store Coffee. No article for clearing is required.

The great saving of Coffee is at once perceived when we say that one pound of the Extract of Coffee will go as far as ten pounds of store Coffee. Store coffee is added only to give it flavor. This highly useful improvement is now before the public. The subscriber respectfully requests them to test its merits, fully satisfied that they will find it a delicious beverage, and one superior in every respect to that which is now so generally used. For sale, wholesale and retail, by

DR. GEORGE FELIX,
Pittsburgh, Pa.

The only manufacturer and proprietor in the United States. All orders addressed to him, with the money enclosed, will be promptly attended to.

Price, wholesale, $16 per 100 lbs. Tin cans according to size.—Those who buy wholesale, to sell again, will have it something lower, say, buy 500 lbs. at a time.

*** The Extract is made of Succory root, Carrot root, Coffee and Sugar, through a chemical process.

The following gentlemen sell the Extract in the State of Ohio:—James Johnston, Antrim, Guernsey Co.; J. Sanhey & Co., Londonderry; John Phipps, Smyrna, Harrison Co.; Hogg & Parrish, Moorefield; Samuel Hamilton, Cadiz; Paul & Richardson; P. & J. Carter, Bloomfield, Jefferson Co.; Robert McCoy Wintersville; William Lyon, Wellsville, Columbiana Co.. several places, New Lisbon; the brothers Trescotts, Salem, Columbiana Co.; Wm. Week, Youngstown, Mahoning Co.; James Brown, Lowell, Washington Co.; also, all through Beaver county, Pa.; Wheeling, and about Morgantown, Va.

July 1, 1846.

CORN CUTTERS.

40 Dozen Corn Cutters, with solid backs, just received and for sale by T. P. ELLIS & CO.

Sept. 1.

MADDER SETS.

HAVING had numerous applications, during a year or two past, for Madder Sets, which it was not in my power to furnish, I would now state that I shall have a supply to spare this fall, and those wishing to purchase will do well to send orders early, so that they can be shipped in time to reach their destination before the close of navigation. The price will be $1 50 per bushel, when 25 bushels or more are taken, with no additional charge for casks, or carriage to the port on the lake — or $2 00 a bushel for a less quantity; but orders for less than 5 bushels will not be attended to unless the sets are taken on the premises. JOSEPH SWIFT.

Birmingham P. O., Erie county, O.

STRAWBERRY PLANTS.

JOHN BURR offers for sale, at the Columbus Nursery, Strawberry Plants of the following varieties:

Hovey's seedling, Burr's seedling, and Methven, at 50 cents per doz., or 2 dols. per 100. Hudson, Virginia Scarlet, and Baynes' extra early, at 37½ cents per doz., or 1 dol. 50 per 100.

After 1st September next. Ross Phœnix and Bishop's Orange, 50 cents per doz. Burr's Ohio Mammoth, and Burr's New Pine, 3 dols. per doz. Rival Hudson and Columbus, 1 dol. per doz.

The Scioto and Rose will not be for sale till 1847.

Mr. Burr has also a large and fine assortment of fruit trees, grape vines, shrubs, plants, and roses.

MUSTARD SEED AND GROUND MUSTARD.

I Will pay the highest market price for genuine Brown Mustard Seed, of good quality, at my mustard manufactory on Western Row, between Mason and Everett streets, Cincinnati—where will at all times be found a regular supply of the best Flour Mustard to be found in the western country, and equal to any that is made.

R. SAVILL.

Aug. 15. — 3t.

Lake Erie Nursery, Cleveland, Ohio,

ELLIOTT & CO., Proprietors.

THE proprietors of this Nursery offer for sale one of the larges stocks of Fruit and Ornamental Trees, Shrubs, Roses, &c., &c. ever offered in Ohio.

Orders through the Post Office or otherwise, will receive prompt attention, and when desired, trees will be packed in such order that they may be conveyed many hundred miles without injury.

Cleveland, May 1, 1846.

FRUIT TREES, SHRUBS AND PLANTS.

M'INTOSH & CO., at their Nurseries and Green House, Cleveland, O., offer for sale a large and valuable assortment of FRUIT and ORNAMENTAL trees, embracing all the finest varieties of Apples, Cherries, Pears, Plums, Peaches, Apricots, Nectarines, Quinces, Strawberries and Raspberries, with a very choice collection of Ornamental Trees and Shrubs, both deciduous and evergreen; Grapes, foreign and native; Roses, (over 200 varieties) Green house and Herbaceous Plants, Bulbous Roots, Double Dahlias, Rhubarb, Asparagus, &c., &c.

The proprietors have now 20 acres closely planted with fruit and ornamental trees, and have spared no pains or expense in procuring every valuable variety cultivated at the East.

Their trees are thrifty and handsome and are warranted genuine. Descriptive catalogues may be had without charge on application to the proprietors.

All orders wi be carefuy packed and forwarded without delay.

Cleveland, March 10, 1846. [april 1]

FRUIT AND ORNAMENTAL TREES,

AT CABLE'S NURSERY,

ON the Pittsburgh Road, 2½ miles from Cleveland, is offered a good assortment of Apple, Peach, Cherry, Plum, Pear, Nectarine, Grape, Quince, Apricot, &c., which are propagated from some five hundred specimen bearing trees on the place, and many of the trees offered are large. Also, Balsam Fir, Silver Leaf, Locust, Willow, Fringe Tree, Snowball, and other Shrubs, all in good order, and at prices to suit the times.

E. CABLE.